

## **REMARKS**

The application included claims 1-4, 6-13, and 18-30 prior to entering this amendment.

The Applicant amends claims 1, 6, 8, 12, and 18. No new matter is added.

The application remains with claims 1-4, 6-13, and 18-30 after entering this amendment.

### **Summary of Telephonic Examiner Interview**

Applicant's undersigned attorney spoke with Examiner Vo on June 7, 2011 to discuss the rejection and amendment of claims 1 and 18. Examiner Vo indicated that a further review of the references and Applicant's specification would need to be conducted in view of the amendment. Applicant thanks Examiner Vo for his time and consideration.

### **Claim Rejections - 35 U.S.C. § 112**

The Examiner rejected claims 18-25 under 35 U.S.C. § 112, second paragraph.

The rejection is traversed; however, Applicant amends claim 18 only to expedite prosecution, and without prejudice to pursuing the claims as previously presented or in other forms. Amended claim 18 recites, in part, an apparatus, comprising:

means for scanning an image to obtain a full image level of a color element of one or more pixels of the scanned image; and  
means for operating on the scanned image.

Applicant respectfully submits that sufficient structure is disclosed in the drawings and specification of the present application to support the recited means. Accordingly, withdrawal of the rejection of claims 18-25 is respectfully requested.

### **Claim Rejections - 35 U.S.C. § 103**

The Examiner rejected claims 1-4, 6-13, and 18-30 under 35 U.S.C. § 103(a) over Hajjahmad *et al.* (U.S. Patent 5,748,770) in view of Okada *et al.* (U.S. Patent 7,233,414).

The rejection is traversed; however, Applicant amends claims 1, 6, 8, 12, and 18 only to expedite prosecution, and without prejudice to pursuing the claims as previously presented or in other forms. Amended claim 1 recites a method, comprising:

scanning an image with a scanner to obtain a full color level of a color element of a pixel of the scanned image;

decreasing the full color level of the color element by reducing a number of bits of the full color level of the color element to form a reduced color level image, wherein the number of bits reduced from the full color level is dependent on an image noise associated with the scanned image, and wherein decreasing the full color level causes the image noise to be substantially removed from the scanned image;

composing a pattern comprising the number of bits reduced from the full color level of the color element, wherein the pattern has less color level of the color element than the full color level; and

restoring the full color level of the color element of the pixel by combining the reduced color level image with the pattern, wherein the full color level of the color element is restored without reintroducing the image noise into the scanned image.

### **No Prima Facie Case of Obviousness**

The Examiner failed to meet the legal burden of establishing a prima facie case of obviousness under MPEP 2142 at least for the reason that (1) the Examiner has not provided a proper suggestion or motivation to combine the references, (2) there is no reasonable expectation of success, and (3) the combination of references does not teach or suggest all the claim elements.

#### **1. No motivation to combine**

Hajjahmad is directed to image color recovery while “transforming data from the spatial domain to the frequency domain” (col. 2, lines 18-37). Okada is directed to a method of image compression, where gradation conversion characteristics of a primary data is compared to secondary data to determine a “correlation between the primary data and the secondary data and employing the calculated data as tertiary data” so that the “amount of recording data can be reduced” by discriminating “redundant similarities between the two kinds of data (col. 2, line 31 to col. 3, line 3).

As argued in the response dated February 3, 2011, the teaching of Okada related to comparing gradation conversion characteristics of a data compression process fails to provide any insight or guidance as to improving the transformation process from a spatial domain to a frequency domain, as disclosed in Hajjahmad. According to Okada, “Image regions having extremely high luminance need not be reproduced finely because the visual sensitivity is low for those regions” (col. 7, lines 63-66). Similarly, Okada teaches that “in image regions (high-luminance regions or low-luminance regions) for which the visual sensitivity is low, difference

data is recorded after being decimated (making) it possible to efficiently compress difference data in such a range that the decimation is not visually discernible” (col. 9, lines 27-32). There is no indication in Hajjahmad that these types of visual phenomena are related to a transformation process from the spatial domain to the frequency domain.

By way of providing motivation to combine Okada with Hajjahmad, the Examiner stated that “it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Hajjahmad by the teaching of Okada to improve luminance level and have better image quality by reproducing process (e.g., FIG. 3) of Okada” (page 3, first paragraph, of the April 7, 2011 Office Action). Applicant respectfully disagrees. Since Hajjahmad’s transformation process does not include any compression of image data, it is less than clear why the Examiner believes that Okada’s treatment of luminance during compression would improve a luminance level of Hajjahmad’s domain transformation process. Rather, since the compression of image data, as taught by Okada, is unrelated to the domain transformation process, as taught by Hajjahmad, Applicant respectfully submits that the Examiner has failed to identify a proper basis for why one of ordinary skill in the art would be motivated to combine Hajjahmad with Okada.

## **2. No reasonable expectation of success**

As discussed above, Okada discloses that gradation conversion characteristics of a primary data is compared to secondary data to determine a “correlation between the primary data and the secondary data and employing the calculated data as tertiary data” so that the “amount of recording data can be reduced” by discriminating “redundant similarities between the two kinds of data” (col. 2, line 31 to col. 3, line 3), while Hajjahmad discloses an image color recovery process while “transforming data from the spatial domain to the frequency domain” (col. 2, lines 18-37).

Even assuming, for argument’s sake, that the combination of Okada with Hajjahmad is appropriate, Applicant respectfully submits that a method of data compression, as taught by Okada, is sufficiently dissimilar to Hajjahmad’s transformation process to render the proposed combination overly vague and indeterminate. For example, the Examiner has provided no explanation as to how the tertiary data calculated by Okada for compressing image data could be applied to transforming data from the spatial domain to the frequency domain, as in Hajjahmad.

To expedite prosecution, Applicant amends claim 1 to further recite *wherein decreasing the full color level causes the image noise to be substantially removed from the scanned image, and wherein the full color level of the color element is restored without reintroducing the image noise into the scanned image*. Applicant respectfully submits that one of ordinary skill in the art would appreciate that removing the luminance from Okada's image data would render the proposed combination inoperable.

### **3. The claim elements are not taught by the proposed combination**

The Examiner alleged that "luminance difference considers as noise level associated with the image data" (page 2, fourth paragraph and page 3, final paragraph, of the Office Action). It is unclear why the Examiner takes the position that luminance is considered the same as noise level. None of the cited references disclose that luminance discloses noise level. Rather, Applicant respectfully submits that the Examiner's interpretation of luminance in Okada is either arbitrary or is influenced by impermissible hindsight in view of Applicant's specification. Accordingly, the cited references both alone, and in combination, fail to disclose *an image noise associated with scanning the image*, as recited by claim 1, in the first instance. Similarly, the proposed combination fails to disclose *wherein decreasing the full color level causes the image noise to be substantially removed from the scanned image, and wherein the full color level of the color element is restored without reintroducing the image noise into the scanned image*, as discussed above.

Furthermore, Applicant respectfully submits that the Examiner has failed to provide a sufficient allegation as to which, if any, of the references discloses *composing a pattern comprising the number of bits reduced from the full color level of the color element*, as recited by claim 1. The Examiner's rejection of claim 1 is silent as to this element. The Examiner has alleged that Hajjahmad discloses "composing a pattern... comprising the color element" (page 6 of the Office Action). The Examiner has also alleged that Okada discloses "decreasing the full color level of the color element by reducing a number of bits of the full color level to form a reduced color level image" (page 7 of the Office Action). Even assuming, arguendo, that the Examiner is correct in these allegations, the Examiner has not provided any evidence for how the combination discloses *composing a pattern comprising the number of bits reduced from the full color level of the color element*. Applicant respectfully submits that the rejection of claim 1 is

therefore improper, at least on the basis that the Examiner has failed to identify with particularity how, or if, the combination of references discloses all the recited elements.

Additional and related arguments were provided in the February 3, 2011 amendment and are not repeated here.

Although of different scope than claim 1, independent claims 6, 8, and 18 recite certain elements similar to those discussed above in claim 1, such that the comments directed to claim 1 also apply to claims 6, 8, and 18. As claims 2-4, 6, 7, 9-13, and 19-30 depend directly or indirectly from independent claims 1, 6, 8, and 18, the comments and revisions directed above to claims 1, 6, 8, or 18 apply equally to claims 2-4, 6, 7, 9-13, and 19-30, respectively. In addition, claims 2-4, 6, 7, 9-13, and 19-30 recite further subject matter. Accordingly, reconsideration and withdrawal of the rejection of claims 1-4, 6-13, and 18-30 is respectfully requested.

Any statements made by the Examiner that are not addressed by the Applicant do not necessarily constitute agreement by the Applicant. In some cases, the Applicant may have amended or argued the independent claims thereby obviating grounds for rejection of the dependent claims.

### CONCLUSION

For the foregoing reasons, the Applicant respectfully requests reconsideration and allowance of the present application. The Examiner is encouraged to telephone the undersigned at (503) 546-1812 if it appears that an interview would be helpful in advancing the case.

**Customer No. 73552**

Respectfully submitted,

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A handwritten signature in cursive script, reading "Bryan Kirkpatrick", written over a horizontal line.

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